



The SCADALink RIO900-ESD is a specialized RTU designed for emergency shutdown of Oil and Gas pumping systems such as:

- Well Production into Tank Batteries
- Pumping into Disposal and Injection Wells
- Source Well Pumping
- Source Water for Fracking Operations

The SCADALink RIO900-ESD is a license-free 900 MHz radio / RTU preconfigured for emergency shutdown applications. The SCADALink RIO900-ESD uses its integrated radio to broadcast shutdown signals to multiple remote sites while simultaneously providing wireless access to field data over Modbus RTU protocol.

With the I/O module attachment, the SCADALink RIO900-ESD broadcasts the status of the I/O module through the integrated 900 MHz radio module, causing a shutdown at remote sites to prevent emergency situations.

The RIO900-ESD is simple to use with no programming required to setup the emergency shutdown functionality.

FEATURES

- Failsafe operation with configurable timeout
- Integrated 900 Mhz radio
- RF data rate 9.6 or 115.2 Kbps
- Modbus RTU protocol or transparent mode
- RS232/RS485 interface
- Interoperates with existing SCADA traffic
- Interoperates with SCADALink I/O modules
- Class I Div 2
- Industrial temperature: -40 to 85 Deg C

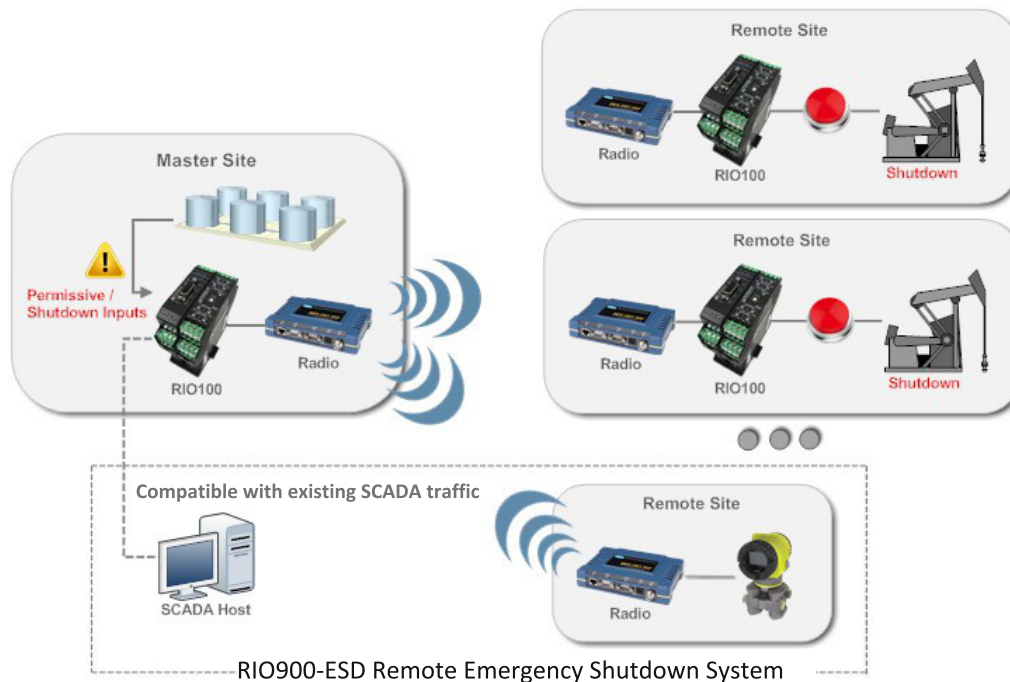
BENEFITS

- Wireless failsafe shutdown
- Preconfigured for Emergency Shutdown
- No programming required
- Integrates with SCADALink SAT100 satellite modem
- Approved for use in hazardous locations
- Easily configurable via Windows interface

APPLICATIONS

- Well production into tank batteries
- Pumping into disposal and injection wells
- Source well pumping
- Source water for fracking operation

SYSTEM DIAGRAM



SPECIFICATIONS

GENERAL

Operating Temperature	-40 to 85 Deg.C
Mounting	30.5 mm DIN rail
Dimensions	114.5mm (H) x 22.6mm (W) x 99 mm (L)

ELECTRICAL

Input Voltage	9 to 30VDC
Peak Tx Current	105 mA (@24VDC)
Rx Current	6mA (@24VDC)
Sleep Current	1.5mA (@24VDC)
Power Modes	
Normal	Always on
Low Power	Programmable sleep period

CERTIFICATIONS

Radio	FCC, IC, ETSI
Hazardous Location	Class I, Div 2 Group C, D T3C suitable for use in Class 1 Zone 2, IIB, T3C

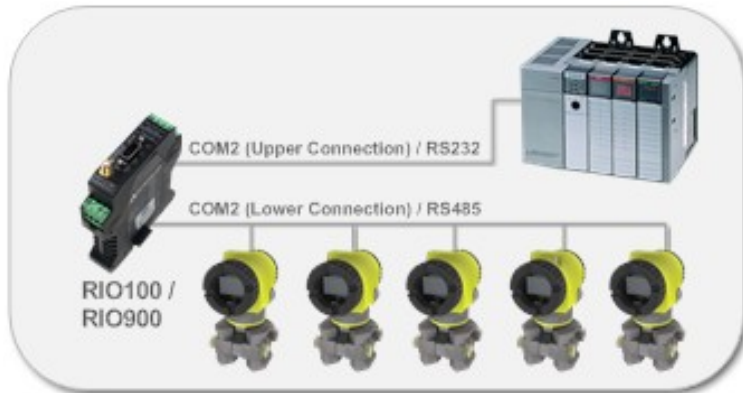
DATA COMMUNICATIONS

Data Rate	1.2 - 115.2 Kbps
Data Interface	1 RS232 (DB9 male)
	1 RS232 / RS485 (4 Pin terminal)
	5 Pin bus connector

WIRELESS COMMUNICATION

RF Band	
North America	902-928 Mhz license-free SS
International	915-928 Mhz
RF Data Rate	9.6 or 115.2 Kbps
Range (LOS)	Up to 40 miles with high gain antenna
Transmit Power	1 mW - 1 Watt (0 - 30 dBm)
Receive Sensitivity	-110 dBm (9.6 Kbps)
	-100 dBm (115.2 Kbps)
Antenna Connector	SMA

APPLICATIONS



RS232 and RS485 communications



Communication to analog transmitters

ORDERING INFORMATION

NAME	DESCRIPTION
RIO100	Remote I/O RTU
RIO100-ESD	Remote I/O RTU with Emergency Shutdown
RIO900	Integrated Radio RTU
RIO900-ESD	Integrated Radio RTU with Emergency Shutdown

ACCESSORIES

NAME	DESCRIPTION
AI4	4 analog inputs (4-20mA)
AO4	4 analog outputs (4-20mA)
DI8	8 digital inputs
DO8	8 Digital outputs (relay)
A8D4	4 analog / digital inputs
	4 analog / digital / pulse inputs
	4 digital outputs
CAB-316-SMA	Jumper cable, SMA (M) to N (M), 3 ft., RG316